12.3 Duke Energy – PMO Model and Framework Components

In the following six parts of this case study, the Duke Energy PMCoE provides its descriptions of how the PMCoE implements the six key components of the Project Business Management PMO model and framework: Governance; Methodology; Capability; Planning; Execution; and Sustainability.

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12.3.1 SURVEY – PMO Governance: Describe below, at a summary level: (a) How the PMO presents and sells itself internally to the enterprise, and externally to the marketplace, as an executive-level business management function that provides value. (b) Describe below, at a summary level: How the PMO addresses the policies and charters that are established to govern the PMO; and, How the PMO provides an organizational model for (c) the business management of project-portfolios, project-programs, and projects, and for (d) the establishment of portfolio, program, and project management organizations (offices).

(a): PMO Presents and Sells its Value – The PMCoE is an executive-level management business function that is re-chartered on an annual basis by Senior Executives. Those Senior Executives expect to see continued progress in project performance, organizational project management maturity, and transparency.

Additionally, it is expected that favorable feedback is provided by key internal stakeholders, relative to the value-add provided by the PMCoE.

(b): Addressing Policies Governing the PMO – Senior Executives delegate responsibility for the establishment of project management policy to a PMCoE Executive Governance Committee, which is co-chaired by the Senior Vice President of Operations Support. This committee establishes the detailed charter for the PMCoE and generally approves any policy that has been endorsed by an Enterprise Project Management Working Group.

(c): PMO Policies and Processes for Establishing Project/Program/Portfolio Management – The PMCoE provides an organizational model for the business management of project-portfolios, project-programs, and projects through its metrics driven approach to performance improvement. Specifically, gaps are identified on a project level and rolled-up on a project-program and project-portfolio basis to analyze trends, identify gaps, and develop associated actions.

(d): Policies and Processes for Managing PMOs – The PMCoE provides an organizational model for the establishment of project-portfolio, project-program, and business unit PMOs by utilizing a lean model that leverages subject matter expertise, from across the enterprise, to identify and develop best practices.

(a): Number of Years as Functioning Organization – The PMCoE has been functioning for approximately 2.5 years, since the close of the merger between Duke Energy and Progress Energy.

(b): PMO Development Timeframe – The concept of the PMO was defined during merger and integration planning efforts by leaders from the two legacy companies, and was established as an enterprise-wide PMCoE, immediately following the close of the merger.

(c): PMO Became Fully Functional In – July 2012

(a): PMO Initial Implementation Steps – The recommendation to establish an enterprise-wide PMCoE was made during the merger and integration planning efforts by leaders from the two legacy companies, and was accepted more than six months prior to the close of the merger.

(b): Prior PMO – None - Not Applicable

(c): Direction to Create PMO – The direction to create the PMCoE came from the merger and integration team, and was endorsed by the executive leadership.

(a): Challenges to Forming PMO – Challenges to forming the PMCoE included:

- Turnover of key advocates for the change.
- A perception by some that the associated approach to project management would introduce bureaucracy.

(b): Handling PMO Forming Challenges – Challenges were dealt with through the execution of a detailed change management strategy that included:

- Active and visible executive sponsorship.
- The building of a sponsorship coalition.
- Partnering with business units to customize the project management framework and eliminate any non-value added items.

(a): Current Challenges to Operating/Managing PMO – Explicit demonstration of the PMCoE's value through quantifiable measures/metrics.

(a): Current Challenges to Operating/Managing PMO – Explicit demonstration of the PMCoE's value through quantifiable measures/metrics.

(b): Handling Current PMO Challenges – Development of a performance dashboard highlighting key enterprise-wide project performance trends and linking them to initiatives to close any identified gaps. This performance dashboard will be periodically reviewed with executive leadership.

PMO Disciplines and Functional Roles – The PMCoE team is comprised of the following disciplines:

- Project Managers/Directors,
- Project Controls Specialists,
- Trainers and Training Content Developers, and
- Project Coordinators.

See also, Figure 12-1, the Duke Energy Governance Hierarchy, which is located on Page 301.

PMO Management Relationship to Operational Management – The enterprise PMCoE is separate from the enterprise's operational management and is not directly involved in day-to-day operations.

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How PMO Delivers Benefits and Value – The PMCoE delivers benefits and value in the form of improved project performance and transparency.

Funding PMO Operations – Overhead funds are allocated, via the annual budgeting process, from the various departments in the company who are supported by the PMCoE. When efforts are spent supporting a specific Program/Project, then that funded Program/Project is charged directly by the PMCoE.

(a): PMO Leader Description – The Director of the Project Management Center of Excellence for the overall enterprise leads the PMCoE. Responsibilities include:

- Develop and lead the Project Management Center of Excellence.
- Develop and continuously improve enterprise-wide project governance.
- Provide intrusive oversight and support of projects throughout the project lifecycle.
- Drive adoption and use of project management standards, tools, templates, and metrics into the hundreds of projects underway across the enterprise.
- Implement and manage project manager and project controls career paths and associated training and qualification programs.
- Provide expertise and specialized project and risk management knowledge, skills, and abilities through independent project reviews, facilitated workshops, and engagements.
- Improve project and operational performance through active and impactful gathering and sharing of lessons learned.
- Provide support to upstream organizations responsible for project selection, prioritization, assessment, and development.
- Provide support to downstream organizations responsible for asset management, operations, and recovery.

(b): PMO Leader Required Experience – 9 years of work related experience.

(c): PMO Leader Required Education – Bachelors' degree from a four-year college or university

(d): PMO Leader Required Certifications – PMI Project Management Professional (PMP) certification preferred.

(a): PMO Leader Prior Job Experience Required – Experience leading project management organizations and an ability to communicate effectively with executive leadership.

(b): PMO Leader Hired Internally/Externally – The PMCoE Director was selected internally and was a known commodity who had previously led a high performing Major Projects organization, in one of the legacy companies, and exhibited strengths in strategic thinking.

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(a): Consultants Operation of PMO – No third-party consultants were employed to operate the PMCoE.

(b): Consultant PMO Operational Services Provided – Not Applicable.

(a): PMO Profit-and-Loss Center – The PMCoE is considered a corporate overhead business function.

(b): PMO Overhead Function – The PMCoE provides an enterprise-wide function that is neither directly responsible for the execution of projects nor for selling, externally, the PMCoE services.

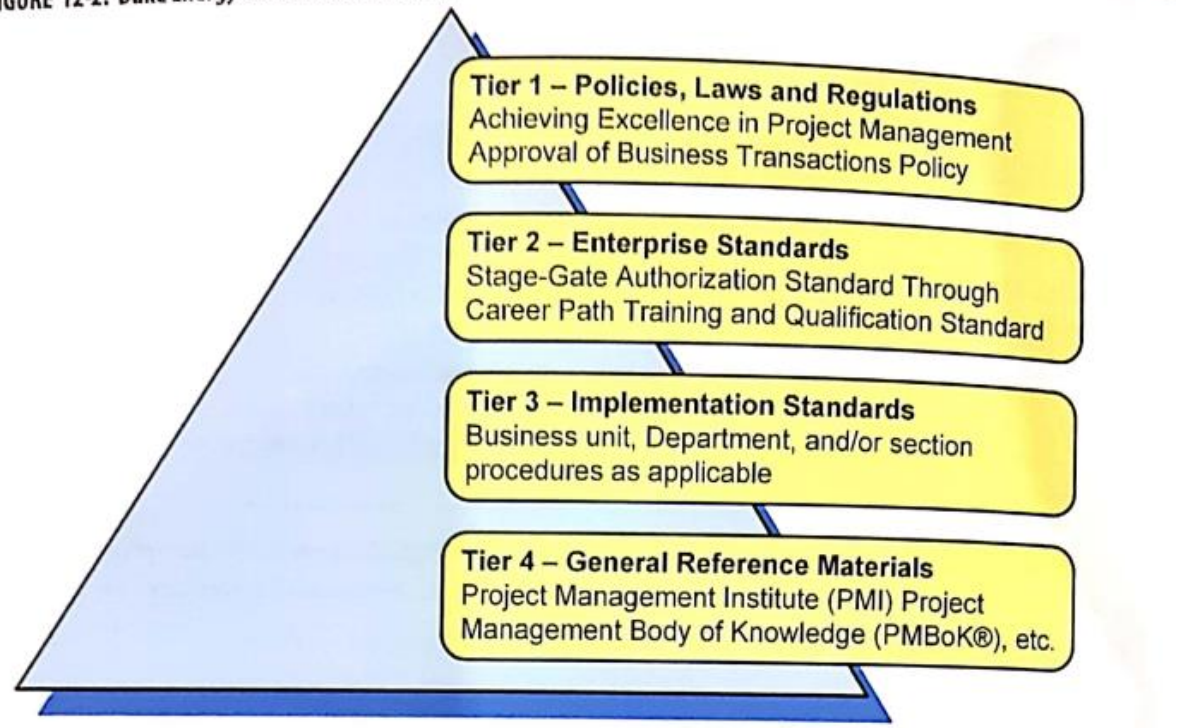
(a): **Integrating Operations and Project Management Policies and Processes** – Best practices were identified, from outside entities such as the American Association of Cost Engineers (AACE), Project Management Institute (PMI), Department of Defense, Department of Energy, and, through the benchmarking of other companies inside and outside the energy industry.

(b): **PM Methodology Development** – Teams of Subject Matter Experts from each legacy company, went through each competency area and agreed upon a consistent and scalable project management process.

(c): **Making PM Methodology Available** – A four-tier document hierarchy was established and the associated processes were documented within a certain document type, which is contained in that hierarchy (See Figure 12-2, the Duke Energy Governance Hierarchy, which is located on the next page). At the top of the structure is company Policy, followed by Standards, and then Guidelines, as follows:

- *Tier 1: Policies, Laws, and Regulations* – Achieving Excellence in Project Management, and Approval of Business Transactions Policy.
- *Tier 2: Enterprise Standards* – Stage-Gate Authorization Standard through Career Path Training and Qualification Standard.
- *Tier 3: Implementation Standards* – Business unit, department, and/or section procedures as applicable.
- *Tier 4: General Reference Materials* – Project Management Institute's (PMI) Guide to the Project Management Body of Knowledge (*PMBOK® Guide*), etc.

FIGURE 12-2: Duke Energy Governance Hierarchy


Tier 1 – Policies, Laws and Regulations
Achieving Excellence in Project Management
Approval of Business Transactions Policy
Tier 2 – Enterprise Standards
Stage-Gate Authorization Standard Through
Career Path Training and Qualification Standard
Tier 3 – Implementation Standards
Business unit, Department, and/or section
procedures as applicable
Tier 4 – General Reference Materials
Project Management Institute (PMI) Project
Management Body of Knowledge (PMBoK®), etc.

When new versions of the following external standards are published, the PMCoE Working Group evaluates and recommends whether or not associated changes to the PMCoE standards are needed to ensure that applicable current best practices are incorporated.

(a): Project Management Standards Used – *PMBOK Guide*, and American Association of Cost Engineers (AACE) recommended practices.

(b): Program Management Standards Used – PMI Program Management Standard.

(c): Portfolio Management Standards Used – PMI Portfolio Management Standard.

(a): Project Management Methodology Utilized – The Project Management processes being employed by the PMCoE align with recognized best practices and are laid out in a scalable framework. Processes are standardized across the enterprise at a requirements level, with many of the specific "how-to" details left to each department to document via their respective implementation standards.

(b): Project-Program Management Methodology Utilized – A Program Management guideline was crafted for program management that aligns with the 3rd Edition of PMI's *Program Management Standard*. The guideline incorporates company best practices while also aligning with Duke Energy's organizational design and culture. Projects within the programs must comply with the Duke Energy project management Policy.

(c): Project-Portfolio Management Methodology Utilized – Portfolio Management recommended best practices exist for portfolio management, but are not standardized across the enterprise and no standard is in place.

Project/Program/Portfolio Management Methodology Implementation Plan – A detailed Change Management Plan was developed, which includes: a stakeholder engagement strategy, plans for finalizing processes, communicating the reasons for change across the enterprise, and training the key stakeholders and the project management community. The plan also includes a means to monitor and control the implementation to ensure effective change management and identify any sources of resistance so that adjustments can be made, as needed.

(a): Systems/Tools/Templates – Due to the vast differences in type and scale of projects across the enterprise, standard project management software is not dictated by the PMCoE. However, standardization occurs across departments where practical. For example, departments completing construction projects such as Nuclear Generation or Transmission have elected to standardize on Primavera.

Numerous tools and templates are provided by the PMCoE and contribute to project success. An example of a key tool is a common risk register that was developed by Duke Energy in MS Excel and provides a single location for the identification, active management, and monitoring/controlling of risks.

An example template is the Project Charter that provides clarity on the issues to be addressed and facilitates alignment on high-level project objectives among project stakeholders at the time of project selection.

(b): Software-Systems/Products – Several key software applications are utilized by the PMCoE to support projects on an as needed/requested basis. These include Acumen Fuse for schedule quality analysis and Crystal Ball for the application of Monte Carlo analysis to better inform contingency requests in project funding.

(a): Enterprise's Management Involvement in PMO Operating Structure – Management at each organizational level is directly involved in the development and implementation of the PMCoE operating structure as follows:

- *Executive Sponsors* – Provide annual input to, and approval of, the PMCoE Charter, delegating specific duties to the PMCoE Executive Governance Committee. This executive sponsor group is comprised of individuals at an Executive Vice President level, who report directly to the President and Chief Executive Officer.
- *PMCoE Executive Governance Committee* – Plays an active role in the establishment of priorities for the PMCoE and in monitoring the performance of projects across the enterprise. This is primarily accomplished through face-to-face meetings held on a quarterly basis. This committee is comprised of individuals nominally at a Vice President level.

(b): Enterprise's Management Involvement in PMO Operating Processes – Management at each organizational level is directly involved in the development and implementation of the PMCoE operating processes as follows:

- *Executive Sponsors* – Provide ongoing input relative to the effectiveness of PMCoE processes.
- *PMCoE Executive Governance Committee* – Plays an active role in monitoring the effectiveness of PMCoE processes. They recommend and approve changes to PMCoE governance processes, career paths, and training programs.
- *Enterprise Project Management Working Group* – Plays an active role in the identification and resolution of performance gaps in project management across the enterprise. Primarily through quarterly face-to-face meetings, they also recommend and approve changes to PMCoE governance processes, career paths, and training programs. This working group is comprised of individuals nominally at the Director level.

(a): PMO Practices Optimization – Active benchmarking with other companies and a frequent review of internal project management lessons learned, along with project, project-program, and project-portfolio management standards, serve as a source of best practices for potential incorporation into the PMCoE practices.

(b): Basis for PMO Practices – Practices are based primarily on Project Management Institute standards and AACE recommended practices.

(c): Updating Project/Program/Portfolio Methodology Practice Guides – As new editions of industry guidelines are released, they are reviewed by the PMCoE staff. Value added items are added to an active abeyance log and reviewed with the Enterprise Project Management Working Group for vetting prior to updating enterprise processes.

(a): Owns Project/Program/Portfolio Management Processes – The PMCoE owns the enterprise project and program management processes that are documented in a set of policies, standards, and guidelines.

(b): Maintains Project/Program/Portfolio Management Processes – The PMCoE maintains the enterprise project and program management processes and ensures they are continuously improved to incorporate best practices and lessons learned.

(c): Monitors Project/Program/Portfolio Management Processes – The PMCoE monitors application of the enterprise project and program management processes through active engagement with the project management community. Engagement occurs through frequent monitoring of project performance and through input received during regular meetings with the Enterprise Project Management Working Group. The Corporate Audit function also monitors compliance to company processes and provides feedback to the PMCoE on compliance to project management processes.

(a): Agile/Lean/Scrum Project Management Methodology – The PMCoE developed an Agile methodology guideline, which captures best practices relative to the application of Agile processes. However, its use is only permitted on non-regulated projects that do not exceed certain cost and complexity thresholds. Additionally, the enterprise leverages Lean methodologies to identify process improvements that may eventually require the application of more structured project management processes.

(b): Classic Project Management Methodology – The PMCoE processes are predominantly based on classic "waterfall" project management methodologies, with only limited use of agile methodologies permitted, as described in the PMCoE Agile Methodology Guideline.

(a): Third-Party Consultants Development of PMO Methodologies – The PMCoE standards were developed in house, without the support of any third-party consultants.

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(b): Consultant Methodology/Process Development Services Provided – None. Not Applicable

(a): Capabilities Assessment – Enterprise project management maturity is periodically assessed using an approach aligned with PMI's Organizational Project Management Maturity Model assessment process.

(b): Project Management Competency Model – The competency model utilized includes a defined career path for Project Managers and Project Controls Specialists that matches the individuals' knowledge, skills, and abilities with business/project needs. These defined career paths also allow individuals to manage larger and more complex projects than indicated by their career level, if under a mentorship plan for development purposes. The competency model also features a training program, and a method for the identification and incorporation of lessons learned from across the enterprise.

(c): Education/Training Program – The PMCoE offers training to various levels in the organization on "the Duke Energy way" to do project management. The PMCoE partners with the corporate learning and development group in providing opportunities for soft-skills development and pursuing industry certifications.

(d): Project Management Career Path – A career path has been established for both Project Managers and Project Controls Specialists. Each career path contains positions at an entry, intermediate, career, and expert level. The path also includes progression based on competency and experience requirements as well as on project and business needs.

(e): Enterprise Environmental Factors and Organizational Process Assets Listing – The company operates in a highly regulated industry, therefore regulatory requirements are key Enterprise Environmental Factors that must be addressed.

(a): Training Program Summary – See Subsection 12.3.3 (c) for a summary of the training program related to the management of projects, programs, and portfolios.

(a.1): Project Management Training – The management of projects is taught via a set of training offerings which vary in content and duration based upon the stakeholder group. Specifically, the following offerings are in place:

- *Executive Series*: Tailored for executive leadership and given at a high level to promote use of a common language for core project management and project controls concepts, such as risk management, estimate maturity, etc. This offering is nominally one hour.
- *Management Series*: Targeted towards managers of Project Managers and/or Project Controls Specialists as well as key management stakeholders. The core concepts taught in the Executive Series offering are expanded upon for this audience. This offering is nominally four hours.
- *Performance Series*: Provided for Project Managers and Project Controls Specialists, as well as project teams and select interfacing groups. The objective is to ensure a working level knowledge of the PMCoE project management processes and practices for application on assigned projects. This offering is nominally two days.
- *Skills Development Series*: Provided for Project Managers and Project Controls Specialists to ensure an understanding of the fundamentals of project management, including work breakdown structure development, scheduling, estimating, and risk management.